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ABSTRACT

This paper examines the economic impact of Walker Technical Institute (WTI) in Georgia on its local economy. In 1994, the annual report by Georgia's Department of Technical and Adult Education found a 77% increase from 1985 in the number of students participating in classes. State financial support for the Department of Technical and Adult Education (DTAE) has not kept pace, however. For instance, system appropriation was reduced by $11 million in 1992 while system enrollment grew by 25,000 students. The paper analyzes three categories of economic impact: (1) spending by WTI, its faculty, its staff, and its students on local government; (2) spending by WTI, its faculty, its staff, and its students on local businesses; and (3) spending by WTI, its faculty, its staff, and its students on local individuals. The amount of institute-related revenues received by local government was determined to be $306,769. The direct economic impact on local businesses was determined to be $2,717,705. The study determined that there were three impacts on local individuals: (1) 456 jobs; (2) personal income of $3,287,631 from institute-related jobs and business activities; and (3) $211,066 worth of durable goods procured with income from institute-related jobs and business activities. This study used the Caffrey and Isaacs (1971) economic impact model. (Contains 10 references and 5 tables.) (NB)

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The Economic Impact of a Technical College on its Local Economy: A Case Study

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Abstract

Community, technical, and junior colleges can have a substantial impact on their host communities. One of the most important types of impact is the economic vitality a college can bring to a community. Using the Caffrey and Isaacs model for measuring an economic impact of a college, the case of Walker Technical Institute (WTI) was examined. WTI, located in rural northwest Georgia, was found to significantly impact the economy of its host community, but the most important contribution was noted to be its educational value for local citizens.

The Economic Impact of a Technical College on its Local Economy: A Case Study

A significant segment of higher education in Georgia is the system of technical institutes operated by the Georgia Board of Technical and Adult Education (GBTAE). The system originated in 1943 when North Georgia Technical Institute, in Clarksville, Georgia, was established (Georgia Department of Technical and Adult Education, 1993). At the end of the 1994 fiscal year the GBTAE was operating 37 institutions and had served 203,519 students for the 1994 fiscal year (Georgia Department of Technical and Adult Education, 1994). Thirty-one of the institutions are owned and operated by the GBTA, four are owned and operated jointly with Georgia Board of Regents, and two technical institutes are locally owned and operated by county boards of education.

The State Board has the responsibility for planning, coordinating, and regulating the State's system of technical institutes. The Board policies are administered by the Department of Technical and Adult Education (DTAE). The Chief Executive Officer of the DTAE is the "Commissioner." The DTAE mission is to

> contribute to the economic and workforce development of Georgia by providing quality adult literacy education; continuing education; customized business and industry training; and guaranteed technical education at the certificate, diploma, and associate degree levels. (Georgia Department of Technical and Adult Education, 1995, p. 7)

The Georgia Board of Technical and Adult Education and the Georgia Department of Technical and Adult Education are relatively new to Georgia State government. The department was first established in 1985 (Georgia Department of Technical and Adult Education, 1988). Prior to 1985, vocational-technical education in Georgia was governed at the State level by the Georgia Department of Education. Local

governance for the majority of the technical schools was provided by either a county board of education or a local board of directors, with the local boards having almost complete autonomy for the operation of their institutions (Georgia Department of Technical and Adult Education, 1988).

A considerable variation in the type and quality of educational programming offered by the local institutions resulted from the difference in local governance at each institution (Georgia Department of Technical and Adult Education, 1988). Some institutions received substantial local revenue while others received none. This variation in local financial support created a significant disparity in the educational technology and instructional equipment available for use by the students and faculty (Georgia Department of Technical and Adult Education, 1988). By the late-1970s and early-1980s the demands of business and industry for a well trained and educated work-force increased in response to the growing threat of global competition. Due to the fragmented delivery system and increased educational demands it became apparent to political and business leaders that changes were needed (Georgia Department of Technical and Adult Education, 1990). In 1983 the Georgia Vocational Education Task Force was established to investigate the fragmented delivery of vocational, technical, and adult education in Georgia and to make recommendations to improve the delivery of these services (Georgia Department of Technical and Adult Education, 1988). Ultimately, the task force recommended the creation of a separate entity with sole responsibility for administrative oversight for the area vocational-technical schools (AVTS). Legislation creating the Georgia Board of Postsecondary Vocational Education was passed by the Georgia General Assembly; this resulted in the establishment of the Georgia Board of Technical

and Adult Education. Subsequent legislation passed in 1988 changed the name of the Board to the Georgia Board of Technical and Adult Education (Georgia Department of Technical and Adult Education, 1993).

The Board was authorized to manage and govern all aspects of postsecondary vocational-technical education at the state level (Georgia Department of Technical and Adult Education, 1988). In 1987 additional legislation was introduced and passed by the Georgia General Assembly, which granted the Board the authority to convert locally owned vocational-technical schools to state management on a voluntary basis and authorized local Boards of Directors for each school. The board also authorized several institutions under its authority to award the Associate of Applied Technology degree, thus expanding the mission of the institutions (Georgia Department of Technical and Adult Education, 1993).

Since the establishment of the Board and the creation of the State System, enrollment has increased significantly. In 1994, 203,519 students participated in programs offered by the technical institutes (Georgia Department of Technical and Adult Education, 1994).

An analysis of the enrollment, reported in the 1994 Department of Technical and Adult Education Annual Report for the period 1985 through fiscal year 1994, revealed a trend of significant growth. The number of students participating in classes increased from 114,665 in 1985 to 203,519 in 1994, an increase of 77% (Georgia Department of Technical an Adult Education, 1994).

State financial support for the Department of Technical and Adult Education has not kept pace with the enrollment. Jerry Crockett, Assistant Commissioner for

Administration for the Department of Technical and Adult Education, pointed out that, historically the Department of Technical and Adult Education has received approximately 1.5% of the total state budget and approximately 3.5% of the total state education budget. According to Mr. Crockett, for the fiscal year 1987, the first year the department was identified by line item in the State budget, the department was appropriated $90,886,727, compared with the fiscal year 1994 appropriation of $133,879,720, an increase of 46%. He indicated that the State Budget for Technical and Adult education has increased each year over the previous year with the exception of fiscal year 1992 and fiscal year 1993. During fiscal year 1992 the system appropriation was reduced by $11 million during the middle of the year due to a shortfall in State revenues (personal communication, August 4, 1995). During this same time period the system enrollment grew by 25,000 students (Georgia Department of Technical and Adult Education, 1993).

Purpose

The purpose for conducting this study was twofold: to determine the economic impact of Walker Technical Institute on its local economy and to conduct a pilot study to determine the feasibility of utilizing the Caffrey and Isaacs (1971) economic impact model to conduct a statewide economic impact study of all technical institutes operated by the Georgia Department of Technical and Adult Education. An economic impact study of a single institution would depict the economic impact the institution has on its local region, whereas a statewide study could serve to underscore the collective economic impact of the system of technical institutes. The results of such a study could be used to illustrate the collective economic impact of the system to the members of the Georgia

General Assembly, to the Governor, and to the taxpayers of Georgia. The results of an economic impact study could also be used to illustrate the total economic impact on a local community and the economy of Georgia in the event of a reduction in funds. A statewide study, based on a common model, would ensure comparability of results and validity of design.

The Case Study Institution

Walker Technical Institute, the subject of this study, is one of the technical institutes presently operated by the Georgia Board of Technical and Adult Education. The origins of Walker Technical Institute were described in the Walker Technical Institute Annual Report (1995a). Walker Technical Institute was established in 1964 by an act of the Georgia General Assembly and built in the summer of 1966. The original name of the institution was the Walker County Area Vocational-Technical School (WCAVTS). The first students began classes in the fall of 1966, and diplomas were offered in eight programs of instruction. WCAVTS was governed by the Walker County Board of Education. The institution served a four county region in northwest Georgia: Catoosa, Chattooga, Dade, and Walker Counties. Significant milestones in the history of WCAVTS included expansion of the facilities, the addition of new instructional programs, and the conversion to state management in 1988. In 1987 the Walker County Board of Education voted to transfer ownership of WCAVTS to the Georgia Board of Technical and Adult Education, effective July 1, 1988, and the name of the school was changed to Walker Technical Institute. In 1992 the institution was granted authority to expand its mission to award the Associate of Applied Technology degree. In the fall of

1994, construction began on a $4.7 million expansion of the fiscal plant which approximately doubled the size of the institution.

In the 1994-1995 fiscal year Walker Technical Institute provided services to 6,546 individuals: 1,788 were enrolled in credit programs, 2,922 in non-credit programs, 1,761 participated in Adult Basic Education programs, and 75 completed the Single Parent Displaced Homemaker program (Walker Technical Institute, 1995b).

Jeff King, Vice President for Administrative Services at Walker Technical Institute, described the trends of state funding allocated to Walker Technical Institute. He reported that for the 1988-1989 fiscal year. The first year as a state school, Walker Technical Institute received $1,824,622 in state funds. State funds in fiscal year 1994 totaled $2,211,082, a net increase of $386,420 or 21%. During the fiscal year 1992 Walker Technical Institute experienced a mid-year reduction in state funds; the budget was reduced from $2,134,104 to $2,046,252. As of June 30, 1994, this lost revenue had still not been recouped. Because of the 1992 mid-year reduction, two instructional programs were closed, two faculty and one staff position were eliminated, and non-essential spending was deferred (J. King, personal communications, August 8, 1995).

Research Methods and Findings

Three categories of economic impact were analyzed: (1) the economic impact of spending by Walker Technical Institute, its staff, and its students upon local businesses, (2) the economic impact of spending by Walker Technical Institute, its faculty, its staff, and its students upon local government, and (3) the economic impact of spending by Walker Technical Institute, its faculty, its staff, and its students upon local individuals.

The economic impact upon businesses was measured in four categories: (1) institute-related local business volume, (2) value of local business property committed to institute-related business, (3) expansion of local banks' credit base resulting from institution-related deposits, and (4) local business volume unrealized because of the existence of the institute enterprises. The direct economic impact upon local businesses resulting from institute-related expenditures. Made by the institute, its faculty, its staff, and its students in the local economy was determined to be $2,717,705. Two coefficients were applied to this total to determine the indirect business activity generated in the local economy as a result of the direct expenditures. A coefficient (.225) representing the degree to which local business purchased goods and services from other local sources yielded a total of ($611,485) and a coefficient (.70) representing the degree to which individual income received from local business activities was recycled within the local economy yielded a total of $1,902,394. These coefficients represented the midpoint of the range recommended by Caffrey and Isaacs (1971) to ensure a conservative estimate. The total institute-related business volume was estimated to be $5,231,583, as illustrated in Table 1.

The total institute-related business volume ($5,231,583) was used to determine the percentage of total local business volume ($356,742,000) attributable to institute-related economic activity (.015). This factor (.015) and the total fair market assessment (.40) were used to determine the value of local business real property ($74,533,675) committed to institute-related business ($447,202). Local business inventory ($129,925,550) committed to institute-related business ($779,553) was calculated in a

similar manner. The total value of local business real property and inventory committed to institute-related business was determined to be $1,226,755. The Caffrey and Isaacs (1971) economic impact model provides for the calculation of unrealized local business volume resulting from the existence of institute operated enterprises such as food services, bookstores, etc. Walker Technical Institute does not operate any local enterprises which compete with local business ($0). An additional calculation determined the expansion of local banks credit base resulting from time and demand deposits ($1,568,204). The total economic impact of the institute on the local businesses was determined to be $8,026,542, as depicted in Table 2.

The Caffrey and Isaacs (1971) economic impact model provides for the calculation of five impacts on local government, (1) the impact of institute-related revenues received by local government, (2) the operating costs of government-provided municipal and public school services attributable to institute-related influences, (3) the value of local governments' property attributable to institute-related portion of services provided, (4) real estate taxes and other taxes foregone as a result of the tax-exempt status of the institute, and (5) the value of municipal-type services provided for the institute by the institute. The amount of institute-related revenues received by local government was determined to be $306,769. However, the operating cost of government-provided municipal services and public school services attributable to institute-related portion of services provided (-$409,636) and the real estate taxes and other property taxes foregone because of the tax-exempt status of the institute (-$47,070) resulted in a net negative impact upon local government attributable to the presence of the institute of $149,938, as portrayed in Table 3.

The Caffrey and Isaacs (1971) economic impact model provides for the calculation of three impacts on individuals: (1) the number of local jobs (456) attributable to the economic activity of the institute, (2) the personal income of local individuals from institute-related jobs and business activities ($3,287,631), and (3) the durable goods procured with income from institute-related jobs and business activities ($211,066).

The total economic impact of the institute on the local economy for the 1994-1995 fiscal year was estimated to be $11,375,301, compared with the 1994-1995 institute budget of $4,411,557, and with 456 jobs in 1995 being attributable to the economic activity generated by the institute as summarized in Table 4.

Conclusions

The data reported in this study represent a conservative measure of the economic impact of Walker Technical Institute on the local economy. These data provide evidence of an increase in the economic activity of the local economy attributable to the presence of Walker Technical Institute. Funds received by the institute are redistributed into the local economy by three categories of spenders: (1) the institute, (2) its faculty and staff, and (3) its students. The initial expenditure stimulate additional economic activity in the local economy. Results of the study provide evidence that the institute has a positive influence on the local economy (Table 4).

An economic impact study serves as a comprehensive examination of institute expenditures, faculty and staff expenditures, student expenditures, and illustrates the significance of these expenditures upon the local economy. The results of an economic impact study can be used to increase the understanding of the impact of an institution

upon local businesses (Table 2), local governments (Table 3), and local individuals (Table 5).

The focus of the Caffrey and Isaacs (1971) economic impact model is the short-term economic impact of an institution on a local economy. The Caffrey and Isaacs economic impact model does not take into consideration the results of the education received by the students, nor does the model take into consideration the increased earnings of graduates, nor does the model take into consideration the increased taxes paid to governments by graduates. The model also does not take into consideration the value of an institution to a local region for the purpose of business and industry recruitment. Thus, the calculation of the short-term economic impact does provide a conservative estimation of the value of an institution to a local economy.

From a larger perspective the Caffrey and Isaacs (1971) economic impact model could serve as a viable model to conduct a statewide economic impact study. This is evidenced by the use of the Caffrey and Isaacs economic impact model to determine the economic impact of Walker Technical Institute. The selection of the Caffrey and Isaacs model to conduct a statewide economic impact study would lend credibility to the study. Experiences gained by the use of the Caffrey and Isaacs economic impact model to determine the economic impact of Walker Technical Institute could prove valuable should the Caffrey and Isaacs economic impact model be selected for a statewide study. During the course of this study two components of the Caffrey and Isaacs economic impact model were determined to be inappropriate for use due to the character of a technical institute: (1) Module B-1.1.3.5-local expenditures by local fraternities, sororities, and other student living groups, and (2) Module G-1.1.3-real estate taxes paid

to local governments by local fraternities, sororities, and other student living groups, as none of our institutions have fraternities, sororities, or other student living groups. An area of concern is the use of surveys to collect faculty, staff, and student data required by the model. The nature of the survey questions are of a personal financial nature, and faculty and staff members were reluctant to provide the necessary information. This Pattern was repeated during the survey of students, a satisfactory response from students was achieved only after two follow up requests.

The most important contributions of Walker Technical Institute to the local economy are the contributions resulting from the educational programs provided for the citizens of the service region. Participants of the education and training programs conducted by the institute experience increased earnings, opportunities for job advancement, and an enhanced quality of life. These arguments serve as evidence for the existence of Walker Technical Institute. The results of this study will serve to illustrate the short-term economic impact on the local economy and should not be considered the most significant reason for the existence of the institute.

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Table 1.

Institute-Related Business Volume During the Year

Expenditure Category	Value
Institute-related local expenditures	$2,717,705
Purchases from local sources by local businesses in support of their institute-related business volume	611,484
Local business volume stimulated by the expenditures of institute-related income by local individuals other than members of the faculty, staff, or student body	1,902,394
TOTAL	$5,231,583

Table 2.

Summary of Economic Impacts on Local Businesses

Expenditure Category	Value
Total institute-related local business volume	$5,231,583
Total value of local business property committed to institute-related business	1,226,755
Total expansion of local banks' credit base resulting from institute-related deposits	1,568,204
TOTAL	$8,026,542

Table 3.

Summary of Economic Impacts on Local Government

Expenditure category	Value
Total operating costs of local government-provided municipal and public school services attributable to institute-related influences	$409,637
Real estate taxes and other property taxes foregone by local governments because of the tax-exempt status of the institute	47,070
TOTAL NEGATIVE IMPACTS	$456,707
Less positive impacts:	
Total institute-related revenues received by local governments	306,769
Value of municipal services provided by the institute, for the institute	0
TOTAL POSITIVE IMPACTS	$306,769
TOTAL NET NEGATIVE IMPACT	$149,938

Table 4.

Total Economic Impact of Walker Technical Institute on the Local Economy

Category		Value
Model B-1	Institute-related local business volume	$5,231,583
Model B-2	Value of local business property committed to institute-related business	1,226,755
Model B-3	Expansion of the local banks' credit base resulting from institute-related deposits	1,568,204
Model B-4	Local business volume unrealized because of the existence of the institute enterprises	0
Total impact on local businesses		$8,026,542
Model G-1	Institute-related revenues received by local governments	$306,769
Model G-2	Operating costs of government provided municipal and public school services attributable to institute-related influences	-409,637
Model G-3	Value of local government's properties attributable to institute-related portion of services provided	unable to calculate

(table continues)

Table 4, continued

Total Economic Impact of Walker Technical Institute on the Local Economy

Category		Value
Model G-4	Real estate taxes and other property taxes foregone because of the tax-exempt status of the institute	-47,070
Model G-5	Value of municipal-type services provided for the institute by the institute	0
Total impact on local governments		-$149,938
Model I-1	Number of local jobs attributable to the presence of the institute	456
Model I-2	Personal income of local individuals from institute-related Jobs and business activities	$3,287,631
Model I-3	Durable goods procured with income from institute-related jobs and business activities	211,066
Total impact on individuals		$3,498,697
TOTAL NET POSITIVE IMPACT		$11,375,301

Table 5.

Summary of Economic Impacts to Individuals

Expenditure Category	Value
Total number of local jobs attributable to the presence of the institute	456
Personal income of local individuals from institute-related jobs and business activities	$3,287,631
Durable goods procured with income from institute-related jobs and business activities	$211,066